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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/978,542	10/18/2001	Masami Shirai	P21224	5083

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EXAMINER

NGUYEN, THONG Q

ART UNIT	PAPER NUMBER
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2872

DATE MAILED: 11/19/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/978,542

Applicant(s)

SHIRAI ET AL.

Examiner

Thong Q. Nguyen

Art Unit

2872

RW

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 September 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) 12-17, 20-23, 25, 26 and 29 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 8-11, 18-19, 24 and 27-28 is/are rejected.
- 7) ☒ Claim(s) 4-7 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of Invention I in Paper No. 5 of 9/30/2003 is acknowledged. The traversal is on the ground(s) that 1) all pending claims are directed to entire surveying instruments, rather than the light shield devices alone, and 2) the examiner has not shown that the examination of all claims is a serious burden on the Patent and Trademark Office. This is not found persuasive because of the following reasons.

First, as clearly shown in the restriction requirement set forth in the office action, the claims are directed to different embodiments having different structures of the light shielding element used in the survey device. Applicant is respectfully invited to review the pending claims which disclosed different embodiments of the light shield element of the survey device.

Second, the examiner has clearly provided the different classification of the different groups of inventions. Different classification is an evidence to show that the search of all different inventions is a serious burden on the Patent and Trademark Office.

The requirement is still deemed proper and is therefore made FINAL.

As a result of applicant's election, claims 1-11, 18-19, 24 and 27-28 of the elected invention I are examined in this Office action. Claims 12-17, 20-23, 25-26 and 29 of the non-elected invention II have been withdrawn from further consideration.

Priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

3. The drawings contain 20 sheets of figures 1-33 were received on 10/18/2001. These drawings are approved by the Examiner.

Specification

4. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.
5. The disclosure is objected to because of the following informalities: a) Page 8: lines 21-24, the incorporation of the foreign application into the summary of the invention is objected to. Applicant should delete the phrase thereof "The present disclosure...its entirety." Or move the mentioned phrase to different section of the specification; b) Page 34: line 4, "13d" should be changed to -13c--; c) Page 36: line 8, "sixth" should be changed to -fifth--. See page 37, lines 5-8; d) Page 37: line 9, "130dare" should be changed to -130d are--. There are still some grammatical and idiomatic errors in the specification. Applicant should carefully proofread the specification. Appropriate correction is required.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the first paragraph of 35 U.S.C. 112:

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The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

7. Claims 9 and 19 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

a) Claim 9 is rejected under 35 USC 112, first paragraph because the specification does not teach an optical device having a light shield device located between the entrance surface and the exit surface of the erecting optical system and a semitransparent film formed on the first reflection surface of the erecting optical system.

b) Claim 19 is rejected under 35 USC 112, first paragraph because the specification does not teach an optical device having a beam splitting prism, an erecting optical system, a semitransparent formed on the beam splitting prism and a light shielding device fixed on an exit surface of the splitting prism.

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claims 18-19 and 27 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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a) Claim 18 is indefinite because the feature "said semitransparent film" (line 7) lacks a proper antecedent basis. Further, the phrase thereof "an erecting... eyepiece; and" (lines 2-4) should be deleted because the same feature is clearly recited in its base claim 1.

b) The remaining claims are dependent upon the rejected base claim and thus inherit the deficiency thereof.

Claim Rejections - 35 USC § 102

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

10. Claims 1, 10 and 28 are rejected under 35 U.S.C. 102(b) as being anticipated by Nozaki et al (U.S. Patent No. 5,095,326).

Nozaki et al disclose an image finder system comprises an objective lens system, an image erecting prism system and an eyepiece system. They also

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discloses the use of a field frame (L4) having an opening for allowing light passing therethrough while the peripheral section around the opening acts as a light shielding element for blocking off-axis light from transmitting to the eyepiece lens system. The frame is located in the optical path defined between the entrance surface (11) and the exit surface (25) of the image erecting prism system which comprises three prism elements forming a Porro prism system.

See Nozaki et al, columns 3-4 and figs. 1-2.

11. Claims 1 and 11 are rejected under 35 U.S.C. 102(e) as being anticipated by Kanai (U.S. Patent No. 6,377,409).

Kanai discloses an image finder system comprises an objective lens system, an image erecting prism system and an eyepiece system. They also discloses the use of a light shielding element on the second reflecting surface (13) of the prism (10) which is a component of the image erecting prism system (10, 20) for preventing the formation of ghost on the image to be viewed while the central section of the light shielding element allows/guides useful light to the eyepiece lens system. The light shielding element is located in the optical path defined between the entrance surface (11) and the exit surface (23) of the image erecting prism system which comprises a roof prism element. See Kanai, columns 1 and 3-4 and figs. 1 and 3.

12. Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by Kimura et al (Japanese reference No. 10-39121).

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Kimura et al disclose a finder system having an objective lens system, an image erecting prism system and an eyepiece system. See columns 3-4 and figure 15. The image erecting prism system as described in columns 7+ and shown in figures 3-4 comprises a light shielding element which is able to form on one entrance surface or the exit surface of the image erecting prism system for preventing the formation of ghost image made by off-axis light.

Claim Rejections - 35 USC § 103

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. Claims 1, 10, 18, 24, 27 and 28, as best as understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakamura et al (U.S. Patent No. 5,877,892, submitted by applicant) in view of Takase (Japanese reference No. 59-83103).

Nakamura et al disclose a survey system. The system as described in columns 14+ and shown in figures 28+ comprises an objective lens system (111L), a beam splitting element (131) for splitting a part of light passing through the objective lens system to an electronic distance device; a focusing lens system (121L) which is able to move along the optical axis for adjusting the focus; an image erecting prism system (187) comprising three prism elements which forms a Porro prism system; and an eyepiece lens system (151L). Regarding to the feature relating to the semitransparent film formed on the beam splitting element,

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such a feature is inherent from the structure of the beam splitting provided by Nakamura et al by the reason that the splitting element splits incident light into two light paths in which one is guided to an electronic distance device and the other path is guided to the image erecting prism system.

The only feature missing from the survey system provided by Nakamura et al is that it does not explicitly suggest the use of a light shielding element in the image erecting prism system for the purpose of blocking harmful light forming a ghost in the observation/image. However, the use of a light shielding element inside an image erecting prism system for such a purpose is clearly suggested to one skilled in the art as can be seen in the finder system provided by Takase. In particular, Takase discloses an image finder having an image erecting prism system (3, 4) and teaches the use of a thin film between the first reflecting surface of the first prism (3) and the entrance surface of the second prism (4) for the purpose of removing the ghost luminous flux. Thus, it would have been obvious to one skilled in the art at the time the invention was made to modify the survey system provided by Nakamura et al by utilizing a light shielding element inside the image erecting prism system as suggested by Takase for the purpose of removing the ghost luminous flux.

15. Claims 1-3, 8, 10 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kanai et al (U.S. Patent No. 5,668,674) in view of Kimura et al (Japanese reference No. 10-39121).

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Kanai et al disclose an image finder system having an objective lens system (11), an image erecting prism system (13) and an eyepiece lens system (14). In order to prevent the formation of ghost image, Kanai et al teach the formation of an extension section on the exit surface of the image erecting prism system. See columns 2-4 and figs. 1-7. The only feature missing from the art of Kanai et al is that it does not explicitly teach the extension section acting as a light shielding element for preventing the formation of ghost image is formed on the entrance surface of the image erecting prism system as claimed. However, the use of a light shielding element for preventing the formation of ghost image in an image erecting prism system on the entrance surface and/or the exit surface of the image erecting prism system is suggested to one skilled in the art as can be seen in the finder provided by Kimura et al. In particular, the image erecting prism system as described in columns 7+ and shown in figures 3-4 comprises a light shielding element which is able to form on one entrance surface or the exit surface of the image erecting prism system for preventing the formation of ghost image made by off-axis light. Thus, it would have been obvious to one skilled in the art at the time the invention was made to modify the finder provided by Kanai et al by utilizing the teaching, i.e., the formation of light shielding member on the entrance surface of an image erecting prism system, as suggested by Kimura et al for the purpose of providing a light shielding element on the entrance surface of the prism system to improve the ability of correction.

Allowable Subject Matter

16. Claims 4-7 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

17. The following is an examiner's statement of reasons for allowance:

The device as claimed in claim 4/2/1 is patentable with respect to the cited art by the limitations relating to the structure of the light shield mask formed on the entrance surface of the image erecting prism system which is disclosed between an objective lens system and an eyepiece system of a survey device wherein the light shield mask comprises an aperture shaped and arranged in an asymmetrical manner with respect to the optical axis of the device.

The device as claimed in each of claims 6/1 and 7/1 is patentable with respect to the cited art by the limitations relating to the structure of the light shielding element formed on the image erecting prism system which is disclosed between an objective lens system and an eyepiece system of a survey device wherein the light shield element comprises a recessed portion or a beveled surface formed on a common edge of the cemented surface defined by the two prism elements of the image erecting prism system.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

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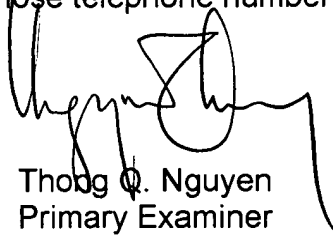
Conclusion

18. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The additional; references are cited as of interest in that each disclosed an optical device having at least one prism and a light shielding element formed or optical coupling to the prism.

19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thong Q. Nguyen whose telephone number is (703) 308-4814. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew A Dunn can be reached on (703) 305-0024. The fax phone number for the organization where this application or proceeding is assigned is (703) 308-7722.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 308 0956.



Thong Q. Nguyen
Primary Examiner
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